

AMENDMENTS TO THE CLAIMS

1-7. (Cancelled)

8. (Previously Presented) A method of detecting an antigen, comprising binding the antigen to an immobilized primary antibody to form a conjugate on a detection area of an adsorbing substrate, binding the antigen to a labeled secondary antibody to form a sandwich structure conjugate, washing away unreacted labeled secondary antibody, and detecting a magnetic signal from the sandwich structure conjugate to detect the antigen,

wherein the labeled secondary antibody comprises an antibody capable of specifically binding to an antigen, a spacer and a magnetic bead having a diameter of 0.5 to 10 μm , and wherein the antibody is coupled to the magnetic bead via the spacer and the spacer is polyalkylene glycol having 50 to 500 repeat units.

9. (Previously Presented) The method of detecting an antigen according to claim 8, wherein the polyalkylene glycol is polyethylene glycol.

10. (Previously Presented) The method of detecting an antigen according to claim 8 or 9, wherein the spacer is bonded to the magnetic bead through an avidin/biotin complex.

11. (Cancelled)

12. (Previously Presented) A kit for detecting an antigen, comprising a primary antibody immobilized on a detection area of an adsorbing substrate and a reagent containing a magnetic bead labeled secondary antibody in a bead concentration of 0.01% to 1%,

wherein the labeled secondary antibody comprising an antibody capable of specifically binding to an antigen, a spacer, and a magnetic bead having a diameter of 0.5 to 10 μm ,

wherein the antibody is coupled to the magnetic bead via the spacer and the spacer is polyalkylene glycol having 50 to 500 repeat units.

13. (Previously Presented) The kit according to claim 12, wherein the polyalkylene glycol is polyethylene glycol.

14. (Previously Presented) The kit according to claim 12 or 13, wherein the spacer is bonded to the magnetic bead through an avidin/biotin complex.

15. (New) The method of detecting an antigen according to claim 8, wherein one end of the spacer is bonded to said magnetic bead and the other end of the spacer is attached to said antibody.

16. (New) The method of detecting an antigen according to claim 8, wherein the labeled secondary antibody is produced by introducing the spacer to the antibody wherein one terminal of the spacer is biotin and the other terminal of the spacer is a functional group and adding the PEG-biotinylated antibody to the magnetic bead comprising streptavidin.